

the British Museum, presented by Sir R. Schomburgk, who, however, did not include it in his list of the birds of that island.

+ 80. *STERCORARIUS CREPIDATUS* (Gmel.).

An example of this species was brought to me alive on the 10th of July, 1888. I recorded the circumstance in 'The Zoologist' for 1888, p. 350.

+ 81. *PUFFINUS AUDUBONI*, Finsch.

A short notice of the breeding of this species has already been contributed to this Journal (*vide* 'The Ibis,' 1888, p. 60). It may be considered as a resident species, for on visiting the bird-rock in October several were captured in holes. It bred in considerable numbers this year, and the eggs were deeply incubated by the end of March.

+ 82. *PODICEPS DOMINICUS* (Lath.).

Schomburgk includes this species in his list of the Birds of Barbados. Undoubtedly one species of Grebe, if not more, visits the island in autumn and winter. I did not procure a specimen, but the description given me of a bird seen at Chancery Lane in 1887 undoubtedly referred to a Grebe.

XLV.—*Further Notes on the Birds of the Canary Islands* *.

By E. G. MEADE-WALDO.

(Plates XV., XVI.)

IN the middle of February of this year I paid another visit to the Island of Fuerteventura, meeting by chance in Las Palmas a kindred spirit, Dr. Percy Rendall, of Gambia, who accompanied me. A fortnight later Canon Tristram, whom I had not expected to see, arrived. My principal objects in this visit were to observe the habits of the Chat which I had procured the previous year, to have another good look at the Cream-coloured Courser and Houbara Bustard on their breeding-grounds, and to get living specimens of as many species as I could. This I failed in, being too early for young

* See above, p. 1.

of most species, or finding the young too small to rear by hand. The day that I landed I saw two pairs of the *Pratincola*, and watched carefully for it all the time I was in the island. I came to the conclusion that it is thinly distributed from the mountains to the sea-beach, and that it lives only where there is some vegetation. Perhaps its favourite haunts are the small barrancos on the north slope of the mountains; but I procured two pairs on the sea-beach, and the cock bird of a pair, which were feeding young ones, on a lava-stream. It is a singularly quiet little bird, hardly putting itself out when its young ones are being handled, flying tamely from bush-top to bush-top, and occasionally uttering a low *chut*, *chut*. I found two nests, each containing two large young. The nests were placed on the ground under stones or, rather, in one instance, under a rock. They are exceedingly early breeders, as by the middle of February the young were full-grown. After I left the island I got a clutch of three eggs, evidently of this species, among a number of eggs sent from the island; they are very round and glossy, with a very thick shell, of the colour of Blackbird's eggs but with the spots very faint, or like intensely bright-coloured eggs of *Pratincola rubicola*.

I propose to describe this bird as a new species, and to name it

PRATINCOLA DACOTIÆ, sp. nov. (Plate XV.)

P. ♂. Supra brunneo-nigra, fusco limbata: cauda brunnea, rectricibus extimis albo limbatis: loris et capitis lateribus nigris, linea supraoculari et postoculari alba, gula et thorace albis: pectoris cinctura pallide castanea, abdomine albedo: hypochondriis et crisso albis, secundariis majoribus interioribus albis, reliquis albo marginatis: rostro et pedibus nigris.

♀. Supra brunnea: gula, thorace et abdomine albidis, cinctura castanea pectoris pæne obsoleta, aliter mari similis. Long. tot. 4·9, alæ 2·5, caudæ 2·3, rostr. ·62, tars. ·9.

Hab. Ins. Fuerteventura, Mauritanice Dacos.

In the ten specimens of this bird that I have in my collection there is no variation. I saw, however, one hen that was feeding young ones, and which I would not shoot, with a very

distinct chestnut band across the upper breast. I looked her over well, within two yards.

I think I got on a little better this year at finding the nests of *Cursorius gallicus*, but they certainly are very difficult to discover. This is caused by the perfectly open country, the bird being of the same colour as the ground and never flying or betraying uneasiness, and the eggs being exactly like the stones that cover the plain. There is really no nest, the bigger stones being just moved away to make room for the bird to sit on the two eggs. I had promised Mr. Sharpe to get him a pair, with the eggs and ground on which the eggs had been laid, for a case in the Natural History Museum. Two or three days after our arrival a goatherd said he knew of one, and offered to show it to us. It seemed very wonderful how he could walk about three miles over ground, without any land-mark to speak of, to two eggs that he had seen a few days before and thought no more about, never dreaming any one could want them; however, he took us straight to them. This man did not know, until I spoke to him, that I was after eggs of any kind. I shot the hen, and proceeded to mark out the ground for removing, when the man, wondering what on earth we were at, walked up and put his foot on the two eggs!! This was singularly annoying, and we were eight days before we found another nest, and had almost begun to despair of ever getting one. However, eight days after this misfortune I got a nest, eggs, and parent, and also a pair of beautiful little young; the young are much easier to find than the eggs. The hen only remains at the nest whilst she is sitting, the cocks either go about in little parties or mix with birds which are not breeding. When the young are hatched, however, both parents care for them, the male being rather shier than the hen. While running about, it is easy to tell the cock from the hen; he carries himself much higher and seems to have a bigger head; when shot this difference vanishes. The males breed in their first year, as two I shot were in partly spotted plumage; nevertheless many do not breed at all, as I saw flocks of from fifteen to forty birds whilst others had

eggs or small young. In flocks they were very wild, and reminded one generally of Lapwings; they skim a great deal with outstretched motionless wings. Their voice is a low *qua qua* when they have young.

When shot the Cream-coloured Courser ejects a lot of brownish fluid out of its mouth, which soils its feathers very much. I fancy this is natural and voluntary. Where they most frequent this fluid may be seen in patches, and a pair of young ones that I kept alive for three days ejected some of it when quite undisturbed and apparently at their ease. This little pair I tried to rear, and think I should have done so, had it not been that they wanted almost ceaseless attention, and I could not spare the time. They ate flies, small snails, and cochineal-bugs, also small pieces of lizard. They ran at a great rate, holding themselves very upright, with their wings stretched out wide. I, greatly against my inclination, converted them into skins. I think they were about five days' old.

The Houbara Bustard resembles the Courser in that the hen only remains at the nest, and the cock comes afterwards and helps to rear the young. Last year I thought it was the exception for the cock to accompany the hen with her young ones, and was much surprised to see one do so; but I am assured by several natives that they *always* do this. The hen Bustard is, however, very tame at the nest, and runs about shamming lameness. The eggs of both Courser and Bustard vary greatly in size and colour; the Courser seems never to lay more than two, the Bustard three as often as two, and the natives tell me they occasionally find five. The newly hatched Houbara Bustard is a lovely little thing, chocolate-brown colour, with patches of cream-colour.

I was surprised to find the Kestrel of Fuerteventura quite different from that of the other islands; it is much smaller, the females being equal in size to the Canarian and Tenerife males. It is, moreover, exceedingly light-coloured, the female of the other islands being very dark. The tail of the adult Fuerteventura hen has less blue than that of the Tenerife hen, and has small brownish bars instead of black. The cock is very pale and pure in colour.

The Linnet of Fuerteventura (*Linota cannabina*) also differs greatly from that of the other islands. While those of Canary, Tenerife, Gomera, La Palma, and, as Canon Tristram writes to me, of Lanzerote, are peculiarly brilliant in colour, the Linnet of Fuerteventura is very pale, wanting in nearly every instance any rose-colour whatever. Only in one out of ten breeding males that I skinned is there a *touch* of colour, and in that it is very pale.

The Tit (*Parus ultramarinus*) differs from *Parus teneriffæ* in being much smaller and paler blue in colour, and in having a broad white margin to the greater wing-coverts, all the secondaries being tipped with white, and in having the white space on the forehead wider. In the large series of *Parus teneriffæ* that I have, and in the hundreds that I have observed in Tenerife within a yard or two, I have never seen one with white-edged wing-coverts. The Fuerteventura Tit is a distinctly different form to the *Parus teneriffæ*.

Flocks of Common Starlings frequented the cactus-fields in the villages, where they lived on the cochineal-bug.

Sylvia melanocephala was common in the tamarisks which grew in some of the barrancos. Their nests were usually placed at some height from the ground, as if to avoid a sudden flood; there had been one or two very heavy rains early this spring. The eggs were of quite a different type from those laid in Tenerife, being white, sparsely dotted with two shades of olive. Three nests contained three eggs or three young, in one instance only one young one, and two contained one incubated egg each, so that they do not seem very prolific. *Sylvia conspicillata* lays full clutches of from four to six eggs.

Two pairs of Plovers that frequented a part of the plain where there is a salt-stream puzzled me. They were like *Charadrius hiaticula*, but were much larger, and appeared to have longer tails, and had a very different voice. They were very wild, and rose with a very powerful flight, circling round and whistling. I never could get within shot, but had good looks at them through my glasses; the beak was orange with a black tip, and the legs were greenish. From seeing them

many times in the same place, and from their behaviour, I am inclined to think that they contemplated breeding there. All birds were later this year than last in breeding, with, perhaps, the exception of the Chat and the Thick-knee. The Sand Grouse (*Pterocles arenarius*) had only commenced to lay March 16th, and it was the exception to find an egg. They were still in flocks, a pair being occasionally seen together. The cock when making up to the hen spreads his tail, and also sweeps it on the ground, like a cock Pigeon, at the same time making a purring noise. In this and in drinking they somewhat resemble the Pigeons, but they drink as if they did not know how to do it, putting their heads into the water, and after holding it in for a second or two, tilting it up with the mouth open for a drop or two to run down by chance. The large, soft, and odorous intestines are very Grouse-like, and the scent emitted from them resembles that of *Lagopus scoticus*. They fill their crops with creeping trefoil morning and evening, and also eat large quantities of a small *Mesembryanthemum*, called by the natives "cosco." The Houbara is also very fond of it. It is dried, stacked, and made into "Gafio" by the inhabitants of the island. I have tasted it: it tastes something between ashes and sand. Both the Sand Grouse and the Houbara Bustard are great eaters of salt.

I only saw one specimen of the sand-coloured Shrike this year, and that was one that Canon Tristram shot. It proved that they retain the sandy plumage after the first moult, as his bird is an old male, and I am sure that those I saw last year were adult. My young sand-coloured bird, however, moulted in England into a pure grey-backed white-breasted *Lanius algeriensis*.

I was but little on the sea-coast this year, but picked up a dead Gannet, apparently adult, but with a black tail. I saw two or three old Gannets with black tails flying off the coast, and a young one that looked like *Sula bassana*. I saw nothing of the Black Oyster-catcher (*Hæmatopus capensis*), but a boy who brought some eggs and a few skins to Tenerife for Don Ramon Gomez had five specimens of it; he said they

were breeding when he shot them. He also brought a female Golden Oriole (*Oriolus galbula*), a Bee-eater (*Merops apiaster*) and a Common Redstart (*Ruticilla phænicurus*). I myself procured in Fuerteventura the White Wagtail (*Motacilla alba*), the Snipe (*Gallinago caelestis*), and the Peewit (*Vanellus cristatus*). Last year I saw Bee-eaters in flocks. *Cypselus pallidus* is abundant, but I did not see *C. unicolor*, either this year or last. The Song Thrush was not uncommon in the cactus-fields, feeding on the cochineal-bug, like the Starling.

Early in April I went over to La Palma, accompanied by Canon Tristram, sailing across from Orotava in about thirty hours. We went in a singularly filthy little schooner, but we had it all to ourselves. Our trip was all too short, but it was most enjoyable. It astonished me to find so much difference in the birds from those of Tenerife and Gomera, both these islands being almost always in sight, one about fifty and the other thirty miles distant. There is a great deal of wood on the N.E. of La Palma, large stretches of laurel-forests intersected by deep barrancos, in which the til-tree flourishes. Above is the evergreen pine-forest, dreadfully hacked about and ruined, splendid trees cut down and rotting, it being impossible to get them away; very many most splendid pines, however, still remain. The southern side, on which is the famous crater, has no laurel, but a good deal of scattered pine-forest, with here and there some good tracts. The first day proved to me that my surmise of last year with regard to *Columba laurivora* was correct, for at a spring where some viñatigo trees were growing we saw several. These Pigeons, though coming into the trees to feed, settled about in the scrub on the mountain-sides or on the ledges of precipices, where ferns and rough herbage grew. The sight of my first *Columba laurivora* in La Palma was very satisfactory, for a German collector had been over in the island a week previously, and had told me that he had neither seen nor procured any Pigeons, and believed that only *Columba livia* was found there. *C. laurivora* has much the same habits as in Gomera, but is scarcer and more distributed; it keeps to the

almost perpendicular slopes covered with scrub, and it is especially fond of the ledges in the steep sides of the barrancos, where ferns grow. On these ledges it nests; it was, however, only just thinking of breeding in the end of April. The native sportsmen say that when the cherries are ripe the "Rabiles" come down to them, and that then they shoot numbers. This Pigeon has a very peculiar walk, marching along with a long swinging gait, raising its tail and bowing its head at every step; it can, however, run quickly, like a Partridge. A fine old male that I have in my aviary has given me many opportunities of studying its actions, and I have had many wild birds walking about quite close to me. My bird was secured with a shot in his head and another in his intestines, from both of which he quickly recovered, but remained almost senseless, and had to be crammed for three weeks; he is now in perfect health and fairly tame, but won't touch his natural food, and prefers wheat and hempseed to anything; he eats large quantities of green rape. The principal food of these Pigeons in La Palma is the fruit of the til-tree and the viñatigo.

I heard and saw plenty of *Columba bollii*; they frequented the higher mountains, as in Gomera, and the larger tracts of forest. I shot two fine males, just to identify them for certain, as a man had told us they had a ring round their necks; he meant the copper-coloured feathers on each side of the neck. Although the native sportsmen tell me that they shoot a great many more *Columba laurivora* than *C. bollii*, I suspect there are really many more of the latter, there being so much more ground suited to their habits.

The first day, besides solving the Pigeon question, we procured a very interesting form of Chaffinch. Canon Tristram shot the first two examples, and I soon afterwards shot two more. They differed from *Fringilla tintillon* in the green on the rump being entirely wanting, the blue slate-colour extending over the whole of the back and being of a slightly lighter shade. The lower breast and abdomen, instead of being buff, is pure white, and the green on the wing-coverts is wanting. This bird, of which we obtained some twenty

specimens, was very common and more generally distributed than *Fringilla tintillon*, being found from about 1500 feet right through the chestnut-woods, laurel-woods, and into the pine-forests. I could distinguish a difference in its call-note and also in the song of the male, but it is very difficult to put in writing. *Fringilla tintillon* says *chēē-wut chee-weet*, the Palma bird *che-wēēt che-wit*. I wrote this down at the time, so I think it is right. The song is decidedly different, but I cannot attempt to put it into words. The female of this Chaffinch is much lighter coloured, with much less green on the back than *F. tintillon* *.

The day following I went out alone, and after shooting several of the new Chaffinch and some Robins, which were of the pale colour of the Gomera Robin, but had the colour on the breast less extended, I had the luck to fall in with a beautiful Tit, quite different from *Parus teneriffæ*. I heard its voice first, and at once thought it was something new, and after some trouble, for it was in exceedingly thick laurels on an almost perpendicular barranco-side, I shot it, and picked up a Tit like *Parus teneriffæ*, only larger, and with the whole of the underparts *white*. On comparing it with *Parus teneriffæ* I find it has a considerably longer tail and longer tarsi, and invariably white tips to its wing-coverts, but less white on the wing-coverts than the Fuerteventura Tit. The young of *Parus teneriffæ* in *first* plumage has buff tips to its wing-coverts and no white on the head, the cheeks and forehead being yellow, the black on the throat and neck being hardly discernible; the back, instead of being blue, is *green*, as in *Parus cæruleus*. The first and last Palma Tits I killed were the only two I saw in the laurel-woods. I never saw any, or heard them, with these exceptions out of the pines, and I

* [This Chaffinch has been described by Canon Tristram (Ann. & Mag. N. H. ser. 6, iii. p. 489) as *Fringilla palme*, and by Dr. A. König (J. f. O. 1889, p. 182) as *Fringilla cærulescens*. Dr. A. König has also separated the Robin of Teneriffe (*cf.* Meade-Waldo, *suprà*, p. 2, and *infra*, p. 516) as *Erithacus superbus* (J. f. O. 1889, p. 183). The number of the Journ. f. Ornith. in which these names are given is dated April 1889, but does not appear to have been issued until August 1889. We believe, therefore, that Canon Tristram's name for the *Fringilla* has priority.—ED.]

think there is no doubt but that the pines are their home: they are common enough in the pine-forests. I looked carefully about all villages, gardens, chestnut-woods, and in all such places as *Parus teneriffæ* frequents, but saw none. They had bred very early, and had young on the wing on April 16th, even up at an elevation of 5000 feet. At the present time, June 22nd, *Parus teneriffæ* had only just laid or is laying in the pines of Tenerife, in the valleys, however, the young have been on the wing some time. So, at similar elevations, the Palma Tit had bred two months earlier than the Tenerife Tit—not in one instance only, for I saw three broods of young flying. Three or four seemed the number of young in each instance, and *Parus teneriffæ* is much less prolific than our little Blue Tit, as I find five to be its full clutch, and four eggs are as frequently laid as five, and in the high mountains three only are not uncommon. The Palma Tit I consider to be a good new species, and propose to call it

PARUS PALMENSIS. (Plate XVI.)

Parus palmensis, Meade-Waldo, Ann. & Mag. N. II. ser. 6, iii. p. 490.

P. ♂. *Par. teneriffæ* similis, sed differt pectore et abdomine pure albis, nec flavis, sine linea nigra; statura majore; cauda et tarsis longioribus.

♀ mari similis.

Long. tot. 5 poll., alæ 2·45, caudæ 2·3, tarsi ·85–·9 (caudæ *P. teneriffæ* 2·1, tarsi ·7–·75).

Hab. The Pine-forests of the Island of Palma.

The Golderest is abundant in La Palma, and is the same as the Tenerife and Gomera *Regulus*. Canon Tristram tells me he considers it different from *Regulus cristatus*, but I have no *R. cristatus* to compare with it out here. When in England last summer I was unable to find any appreciable differences. The nest and eggs are identical with *R. cristatus*, and placed either in tree-heath or pine, but only four or five eggs are laid. In a large number of nests I have never found more than five, often four, and sometimes only three; these were the full clutches, the birds in each instance having com-

menced to sit. Both the Rock Sparrow and the Chaffinch were numerous, the latter swarming everywhere. When no other bird was to be seen, *Phylloscopus fortunatus*, which here appears to have dark legs, was sure to be in sight, from the Retama on the Cumbre to the sea-shore. The Canary was in great numbers and in very large flocks at a high elevation, although in the valleys, and even up to 4000 feet, they were breeding and had young on the wing.

The Blackcap (*Sylvia atricapilla*) is common, as in all the western islands, and the black-throated melanistic variety (*S. heinekeni*) is not at all uncommon in the *Caldera*; this is curious, as it does not seem to be found anywhere else. The inhabitants value them highly, asking five dollars each for caged birds. The Spectacled Warbler (*S. conspicillata*) and the Sardinian Black-headed Warbler (*S. melanocephala*) were generally distributed, the latter breeding at 5000 feet. Berthelot's Pipit, although to be seen in almost every locality, was apparently much scarcer than in the other islands that I have visited. The Common Bunting, the Linnet, which had a red breast, as in the other western islands, and the Goldfinch were all fairly numerous.

Quails were calling in every field, but, strange to say, there is no Partridge in the island. They have been introduced several times from Gomera, where they swarm, but they do not thrive and soon die out.

There is a very large extent of cumbre, which looks admirably adapted to *Caccabis petrosa*. We did not come across the Great Spotted Woodpecker (*Picus major*), and we were a good deal in the pines, of which there is a great extent. It may easily be there, as we had not much time to look, but all I asked were ignorant of either the name "Peto" or "Carpintero," the names by which it is known here in Tenerife.

The Raven is common, especially on the south-east side, and although I knew that the Chough (*Pyrrhocorax graculus*) was found in La Palma, I had never expected to see this bird so numerous. It is exceedingly common from the sea to the cumbre, and in flocks, like our own Rook at home. It is very

tame, but it seems occasionally to suffer at the hands of the inhabitants, as I saw it hung as a scarecrow in the newly planted potatoe-fields. They perch freely among the pines, and breed in the rocky sides of the barrancos; the nest is usually placed in the top of a cave. I took two eggs out of a nest, in which were also two newly hatched young, in a little cave at the very bottom of the Caldera. I was carried across the stream on the shoulders of one of our guides, and standing on them was able to reach the nest, the old ones swearing at me all the time from a distance of a few yards. It seems almost incredible that this bird should not have extended its range to the other islands. When on the Cumbre, with a sea of clouds below us, the mountain-tops of Gomera and Tenerife looked a mere step across, and as the Chough would go, would be only some twenty-five miles distant. They looked so close to us that we were at first uncertain whether they were not the other ends of La Palma.

The Chough has not spread to Gomera or Tenerife, and it will seem equally strange if the Kite and the *Neophron*, both common in the latter islands, have not extended to Palma. We saw neither of these birds during our visit, although continually on the look out; and I was especially keen to see them, as on asking about them of the people they none of them recognized the name of Milano or Guirre, but all knew the Common Buzzard, *Aquililla*. One or two who had been in Fuerteventura knew the *Neophron*, which is there very common, and a few who had been in Tenerife knew the Kite, but they agreed that they had not seen it in La Palma. Our ten days' trip was far too short a time to give more than a glance at the birds of this island, but it was most enjoyable, notwithstanding certain drawbacks in the shape of most filthy quarters on one occasion. If I had seen nothing else, finding *Columba laurivora* repaid me, to say nothing of procuring my living specimen, for which I have tried so long. The Chaffinch and Tit, too, are most interesting additions to the Canarian avifauna. Everything in La Palma was earlier than in Tenerife. On April 14th we got ripe peaches; they were the exception, but the main crop was on the point of

ripening. And I think the 'Tit breeding at a similar elevation two months earlier than in Tenerife points to a different climate as well as to a different bird. The Chaffinch, also, was building a month earlier.

In Tenerife I have recently come across many migrants, some regular and some accidental. Among the regular migrants I may mention the Land-Rail; it is decidedly rare, but is known to many by the name of "Rey de Codornices." The Sky Lark (*Alauda arvensis*) is not rare in winter on the Laguna plains, and is distinguished as "Alondra" from the summer visitor, "Calandra" (*Calandrella minor*). The Desert Short-toed Lark, the Peewit, and the Starling are regular visitors in flocks. The Song Thrush swarmed in the mountains this last winter, but the migratory Blackbirds did not seem to get here, as there was apparently only the usual number of these birds. I have never seen Thrushes lower than about 2000 feet.

At Laguna, Don Anatael Cabrera, who is much interested in the birds of this island, showed me, skinned and stuffed by himself, specimens of the Short-eared Owl (*Asio accipitrinus*), the Roller (*Coracias garrula*) (this last is not very uncommon at migration-time), the Black Redstart (*Ruticilla titys*), the Tree Pipit (*Anthus trivialis*), the Wood Warbler (*Phylloscopus sibilatrix*), the Calandra Lark, the Woodchat Shrike, and the Pine Wheatear (*Saxicola isabellina*). I saw flocks of Dotterels (*Eudromias morinellus*) one day close to the road just outside Laguna, and had a good look at them, and the same day I saw some Ruffs. I had shot a Ruff at Orotava a few days previously out of a small flock. I had a good look at a Honey Buzzard (*Pernis apivorus*), and was quite certain as to the species. In February a small flock of Pochards (*Fuligula ferina*) frequented the tanks near the Botanical Gardens, three of which were shot. I have one that was shot by Mr. Nash, the chaplain, as it flew over the "Azotéa." The Swifts have not behaved this year as they did last. I saw none until Christmas Day, and then only four (*Cypselus unicolor*); after that they were common, and on February 9th I have a note of "*Cypselus unicolor* in large flocks screaming." But the strange thing is that *Cypselus pallidus* never came at

all, or at least only a very few stragglers. They are not breeding in their breeding-places, and only an odd one is to be seen occasionally among the hosts of *C. unicolor*. Many people have noticed this same thing to me; I do not know if it is only confined to this part of the island, but I saw *C. pallidus* in flocks in La Palma. Perhaps the unusually long period of dark gloomy weather has sent them somewhere where there is more sun.

The Cuckoo seems to miss this island. I only saw one this spring; it was being chased by some small birds (*Anthus bertheloti*), as at home, and was in the red-coloured plumage.

I obtained my first nest of *Fringilla tintillon* on May 16th this year, but it was a week or more before they had begun to lay as a rule. Three eggs are the usual clutch, though four are often laid, and also very frequently only two. I am much struck with the small number of eggs laid by many birds here. I have never seen more than three eggs in a Blackbird's nest, very often only two, and frequently one. *Phylloscopus rufus* lays four eggs, occasionally five, often only three. The Tit (*Parus teneriffæ*) lays the same number; the Robin generally three, often only two, occasionally four or five. The egg of the Robin is very richly marked and large, and is as different from the egg of our Robin as the bird itself is. The Goldcrests (*Regulus cristatus*) lay but five eggs, often only four; the egg is exactly like our bird's, but I often find a double-yolked one. The Kite (*Milvus regalis*) and the Buzzard (*Buteo vulgaris*) are prolific enough, for I knew two pairs of Kites which reared *four* young ones and two pairs of Buzzards which had three.

The Chimney Swallow (*Hirundo rustica*) does not seem to breed here. I saw a pair or two about until the middle of May, haunting the same places day after day, but they disappeared. Two pairs of Ospreys bred near Orotava this spring; one pair each side of the town. I have seen several Peregrines (*Falco* —?), and from their small size I should be inclined to think they belong to the small southern form. I saw one the other day within ten yards, and watched him for some time; he had no red on the nape of his neck, and

his breast was bluish white, so he was not *F. barbarus*. I have seen no signs of their breeding here. Some natives, when I drew attention to this bird, which was very tame, said it was a "Coruja," Owl!! They call the Sparrowhawk "Falcon," not "Gavilár," which is the name it is usually known by. I procured a specimen of Leach's Petrel (*Oceanodroma leucorhoa*); I think it has not been recorded from here before. I also got a beautiful little White-breasted Petrel with grey back, forked tail, and long thin tarsi, with yellow webs to its feet (*Pelagodroma marina*)! Bulwer's Petrel (*Bulweria columbina*) breeds commonly along the cliffs; there are two places, not very far from each other, to the east of Orotava. I kept some alive for a short time, because they would not fly away. If thrown up they either fell like stones, or glided away and came into violent collision with the first wall or fig-tree that came in their way. They were all for hiding themselves anywhere, and I used to find them in my boots. Their bill is as useful as a third leg, they lift themselves up by it. They breed under the stones and in the holes at the foot of the cliffs. The Great Shearwater (*Puffinus kuhli*) breeds in the holes in the caves.

The Quails begin to arrive very early, the first migratory Quails I found this year being found at the end of January. In February numbers arrive, and they begin to breed then, near the coast. There are two races, those which spend the winter being smaller, darker, and more brightly coloured than the migrants. They also have brilliant yellow legs, while those that arrive in spring have mostly flesh-coloured legs. It is probably food and soil that make the Quail which winters here different from the spring visitors, for they winter at a high elevation and feed mostly on the fruit of a small shrub, called here "Trovisco," and are, as a rule, only to be found where it grows.

I have this year carefully observed the Teydean Blue Chaffinch (*Fringilla teydea*). I had a tent placed in a pine-forest much frequented by them, and spent two or three days a week for several weeks right in the midst of them. They are a most entertaining bird, so full of life and so tame that they can

be observed exceedingly easily. A pair used to come into my tent and pick up canary-seed at my feet, and would look out for me to release a butterfly if I held one up in my fingers. They are great hawkers after butterflies, and hunt the cracks in the bark of the pines for moths. They usually commence at the top of a tree and hunt the branches from the trunk to the tip, descending to the next branch when they have reached the tip of one. On reaching the point of a bough where there are cones, they hang and twist about to see if there are any open sufficiently for them to reach the seeds; they of course never attempt to open a cone, which would be impossible. A great deal of their time is spent on the ground, looking for insects and pine-seeds, they also are very fond of the seeds of the forget-me-not. They pair early in the spring, but the first nest I found this year, that of a very old pair of birds, was only a quarter built on June 8th; on June 28th the hen had commenced to sit, perhaps for three or four days. This nest, as well as others I found afterwards, contained but two eggs. I have little hesitation in saying that two only are laid, for out of eleven nests seen and seven taken, all contained two eggs, and in each case the hen was sitting. In three instances only one egg was fertile, and in two cases I found the eggs incubated for different periods, as if the hen had commenced to sit as soon as she had laid her first eggs. While sitting the hen *does not quit the nest to mate*, so that before the time she hatches the nest looks as if it had young ones ready to fly. The nest taken on June 28th was far in advance of all others found, for I got no more until July 1th, and on July 8th one pair had not laid. The young of the previous year breed in their immature plumage, and I saw one cock paired with a hen that was much bluer than himself. The nest is built of a great variety of materials—a few pine-needles, dead twigs of tree heath, moss and lichen: it is lined with feathers, goat's hair, and, in one instance, dried grass. The whole of the outside is welded together with spiders' webs, so that some nests appear quite white. The extreme end of a branch is usually chosen, but I found one nest placed against the trunk of a tree, and one halfway along a thick hori-

zontal bough. One nest was lined with Rock-Dove's feathers, and two with those of the Red Kite. The eggs are like those of *Fringilla tintillon*, but larger and brighter in colour. I have two in which the blue of the ground-colour is collected in a zone round the middle of the egg. But small and pale-coloured eggs of *Fringilla teydea* would be indistinguishable from large and bright-coloured eggs of *F. tintillon*. The eggs of both species fade rapidly after being taken. The hen apparently alone builds the nest. I never saw a cock carry any materials. While building and collecting materials she is usually unattended by the cock, and on the few occasions that I have seen him accompany her, she has generally chased him away; he appears, however, to fix on the site for the nest.

As this bird has been almost entirely left to itself until the last year or two, it is a wonder that it is not much more plentiful than it is, not that it is rare in a few favoured localities. It certainly lays only two eggs, and probably breeds only once a year, as it breeds so late; occasionally, though, I expect it breeds twice. Its enemy is the Sparrowhawk, which is fairly common in the pine-forests, and as the Teydean Chaffinch feeds a great deal on the bare ground among the pines, it must fall an easy prey and be frequently snapped up without a chance of hiding itself. I destroyed many nests and pairs of *Accipiter nisus* where I was this spring, and found many "kills" of *F. teydea*, evidently by Sparrowhawks. I especially laid myself out to destroy them, so as to counterbalance the loss occasioned by the nests of *F. teydea* I took. As each nest was taken within a few days of incubation commencing, I expect that in each case the parents will lay again; in fact the pair belonging to my first nest were thinking of doing so the last time I was up in the forest. They are very tame cage-birds, and seem very hardy and easy to keep, provided they have some pine-seeds. They will eat canary-seed and millet, but a butterfly, moth, or grasshopper is what they prefer to all, and soon after being caught they will take them from the hand; they care for no green food that I can find.

I have been surprised to find so much to tell after all that has already been written on these islands, and as I shall probably be here for another year, it is possible that I may have something more to say on the islands of Lanzaote and Hierro, to which I am shortly going.

XLVI.—*On the Ornithology of the Valleys of Andorra and the Upper Ariège, and other Contributions to the Avifauna of the Eastern Pyrenees.* By W. EAGLE CLARKE, F.L.S., &c.

THE birds of the Republic of Andorra and of the Department of Ariège not having come within the scope of the investigations of Mr. Howard Saunders (*Ibis*, 1884, pp. 365–392) and Mr. James Backhouse, Jr. (*Zoologist*, 1884, and *Ibis*, 1887, pp. 66–74),—the only members of the B. O. U. who appear to have devoted special attention to the Pyrenees—it is, perhaps, unnecessary to tender any apology for offering to the brotherhood of ‘The Ibis’ this slight contribution to the Pyrenean Avifauna. Indeed, so far as the remote and little-visited Valley of Andorra is concerned, it is believed that its birds are here treated of for the first time.

The ornithological reconnaissance here recorded was planned by Mr. Backhouse and the writer; but when all was satisfactorily arranged, my experienced friend was most unfortunately, and much to our mutual regret and disappointment, compelled to desert me. I, however, obtained a congenial companion in my friend Mr. Basil Carter, of Masham, Yorkshire, a young and promising ornithologist, whose valuable cooperation it affords me much pleasure to acknowledge.

We arrived at Ax, our headquarters in the Upper Ariège, on the morning of the 12th of May of the present year. Ax is an extremely pleasant little town in the very heart of the French Pyrenees, and situated at the head of the main valley of the River Ariège, which here trifurcates, the valley of the Upper Ariège extending due south, that of the River



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